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Anxiety Sensitivity and Relationship Patterns

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ANXIETY SENSITIVITY AND RELATIONSHIP PATTERNS

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APPROVAL SHEET

This thesis is submitted in partial fulfillment of

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Approved, May 2003

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ABSTRACT

The purpose of this study is to examine the relationship between anxiety sensitivity, dysphoria, and the quality of past and recent interactions as reported in narrative descriptions of interaction episodes. Data were collected from 45 undergraduates at the College of William and Mary enrolled in the Introductory Psychology class. Approximately 700 students in three sections of the Introductory class completed packets of questionnaires in a process known as mass testing, which is part of their course responsibility. The packets included the Anxiety Sensitivity Index (ASI), Center for Epidemiological Studies Depression (CES-D) questionnaire, and several other questionnaires unrelated to this project. Mass testing participants were recruited to a test session in which they were asked to complete the Memories of Relationships (MOR) questionnaire. The MOR asked for narrative descriptions of relationship episodes with parents, friends, and romantic partners. Ratings of the narrative descriptions were completed using Lester Luborsky's Core Conflictual Relationship Theme (CCRT) categories as guidelines. Luborsky's categories were next grouped into positive and negative groupings for purposes of data analyses. Results of two-tailed bivariate correlations between ASI and CES-D scores and ratings of interactions with mother, father and friends indicate that participants scoring high in depression are more likely to report negative relationship episodes with their fathers in their narrative descriptions on the MOR. Several methodological problems associated with the question content on the MOR and an inadequate sample size limit the implications of this study.

ANXIETY SENSITIVITY AND RELATIONSHIP PATTERNS

INTRODUCTION

The goal of this research was to identify core relationship patterns that are associated with scores on measures of anxiety sensitivity (AS) and depression. Anxiety sensitivity refers to the extent to which an individual believes that autonomic arousal can have harmful consequences (Schmidt, Lerew, & Jackson, 1997). Anxiety sensitivity is widely considered to be dispositional and therefore does not require direct experience with extreme stress, anxiety, or panic for development (Schmidt, 1999). Individuals high in anxiety sensitivity do not fear an object or event so much as they fear having an uncontrollable reaction to the object or event. This is to be distinguished from trait anxiety, in which individuals fear actual objects or events (Reiss, 2001). Because beliefs associated with anxiety sensitivity can apply to any stimulus that elicits symptoms of anxiety, individuals who score high in anxiety sensitivity tend to report a greater number of feared objects and situations even after controlling for trait anxiety (McNally, 2002).

Watt and Stewart (2000) reported that high anxiety sensitivity subjects tend to catastrophize the meaning of all somatic symptoms rather than just arousal-reactive symptoms. Anxiety sensitivity appears to be part of a broader set of beliefs about the potential dangers of internal sensations in general. Watt and Stewart (2000) found that anxiety sensitivity played a mediating role in explaining the relations between adverse childhood learning experiences and elevated hypochondriacal concerns in young adulthood. Watt et al., (1998) reported that college students scoring high on the Anxiety

Sensitivity Index (ASI) reported experiencing more anxiety symptoms and cold symptoms during childhood than did college students scoring low on the ASI. High anxiety sensitivity subjects were also more likely to report that their parents encouraged sick role behavior in response to both kinds of symptoms. Stewart and Kushner (2001) reported that "parental concern regarding arousal-reactive symptoms (e.g., nausea, dizziness) directly influenced both anxiety sensitivity and panic frequency, whereas parental concern regarding arousal-nonreactive symptoms (e.g., rashes, colds) influenced anxiety sensitivity but not panic frequency.

Reiss, Peterson, Gursky, and McNally (1986) identified anxiety sensitivity as one of the most promising vulnerability screening measures for anxiety disorders, particularly panic disorder. According to Cox, Enns, Walker, Kjernisted, & Pidlubny (2001), prospective studies (e.g., Schmidt, Lerew & Jackson, 1997) also support the idea that anxiety sensitivity acts as a cognitive predisposition for the development of panic disorder. Reiss (2001) has pointed out that differences in anxiety sensitivity predict vulnerability to panic above and beyond the amount of anxiety experienced. He maintains that those high in AS will experience panic attacks under conditions of moderate or persistent stress while those low in AS will not experience panic attacks even under conditions of extreme and persistent stress.

Shear, Cooper, Klerman, Busch, and Shapiro (1993) formulated a developmental model of panic disorder which links panic disorder to experiences of unsatisfying intimate relationships. Shear et al., (1993) describe the etiology of panic as a neurophysiological defect based on a pathologically low threshold for an inborn fear response. Shear et al.,

(1993) postulate that panic is triggered by a false perception of catastrophic danger, much like that experienced by persons who are high in anxiety sensitivity, usually in connection with a negative affect. Interviews with panic disorder patients indicated several common themes: patients described themselves as fearful, nervous, or shy as children, and described at least one parent as angry, frightening, critical, or controlling. A majority of patients also described chronic marital discord in their childhood homes, and reported significant discomfort with aggression, and chronic feelings of low self-esteem or prominent negative self-attributes.

The literature consistently describes patients with panic disorder as characterized by dependency, avoidance, fearfulness, introversion, low assertiveness and unsatisfying intimate relationships. Evidence indicates that these characteristics are present before the onset of a panic episode and persist afterwards (Shear et al., 1993). In the model constructed by Shear et al. (1993), a link is suggested between fear of bodily sensations, or high anxiety sensitivity, and underlying impairments in regulation of self-esteem. This suggests that high AS participants should have experienced more negative developmental episodes with one or both parents as well as less satisfying interactions with contemporaries.

Messenger and Shean (1998) asked participants to quickly blow up balloons until they either burst or could inflate no more. They found that participants with high Anxiety Sensitivity Index (ASI) scores reported significantly more body sensations, anxious thoughts, and subjective anxiety during the balloon inflation task than did participants with low ASI scores. Group ratings of body symptoms and anxiety responses changed in

opposite directions in response to a mental arithmetic task. Low AS participants rated this task as more stressful than the balloon inflation task while panic and high AS participants rated mental arithmetic as less stressful. This suggests that both panic and high AS groups are particularly reactive to stressors that trigger clear signs of somatic arousal rather than to stress in general (Messenger & Shean, 1998). Donnell and McNally (1989) found that subjects high in AS responded with more anxiety to hyperventilation sensations than did subjects low in AS during a rapid breathing exercise. This was true both for subjects with and without experience of panic. In fact panic history was not associated with enhanced anxiety response to the breathing challenge after controlling for level of anxiety sensitivity.

Liebman and Allen (1995) examined the relationship between anxiety sensitivity and interpersonal perception under varying conditions of physiological arousal. Results suggest that high ASI scorers maintain a chronic state of vigilance that triggers heightened anxiety in ambiguous situations. Liebman and Allen (1995) found that high-AS women are also characterized by heightened dysphoric affect in interpersonal contexts and are likely to report insecure personal attachments. Benton and Allen (1996) reported that high anxiety sensitivity women reported significantly poorer self-perceptions, less favorable appraisals of their boyfriends, and less positive views of their relationships in general. The authors also found that high-AS women believed that their boyfriends felt significantly less favorably toward them in general than did low AS women. Boyfriends of high AS women also gave significantly more negative appraisals of their girlfriends than did the boyfriends of low AS women. This research indicates that high AS

individuals are likely to experience past and present social relationships as less satisfactory than persons who are low in AS.

Considerable overlap or comorbidity exists between anxiety disorders and mood disorders (Kessler et al., 1998). Therefore it is possible that similar patterns of interaction play a role in creating a predisposition to both affective states. Cox, Enns, Freeman, and Walker (2001) investigated the relationship between anxiety sensitivity and depression and found that levels of anxiety sensitivity remained stable despite dramatic improvements in levels of depression. It is possible that negative interpretations and fear of autonomic arousal may contribute to the development of both depression and anxiety sensitivity (Schmidt et al., 1997).

Cantanzaro (1993) reported that an interaction between the ASI and a measure of negative mood regulation expectancy was a significant predictor of scores on Beck's Depression Inventory (BDI). It was observed that those reporting the greatest degree of emotional distress had high levels of anxiety sensitivity and expressed minimal faith in their ability to regulate negative moods. This suggests that there may be a relationship between the tendency to over-react to somatic cues of arousal and cognitive schema that predispose an individual to negatively construe past and current experiences.

A narrative measure, the Memories of Relationships (MOR) measure, was developed by the author's research supervisor to measure the perceived quality of past and recent intimate relationships. The measure was based on Lester Luborsky's concept of Core Conflictual Relationship Themes (CCRT) that are recurring issues in the psychological adjustment of many individuals. Luborsky (1990) postulates that people have a need to

form concepts of their relationship environment and that they also have wishes and needs that create conflicts as they try to bring about changes in their relationships with others. The CCRT refers to the central relationship pattern, or schema that each person tends to follow in their important relationships. It is composed of a person's implicit rules for understanding and dealing with a set of interactions. The CCRT is rated based on the consistencies across the narratives people tell about their relationships (Luborsky & Crits-Christoph, 1990). Luborsky concentrates primarily on three facets of the narratives in order to derive the CCRT: the kinds of wishes, needs, and intentions concerning the other person, responses from the other person, and responses from the self. The concept of a CCRT provides a method for studying relationship patterns that may be associated with characteristics such as anxiety sensitivity and depression. This study will investigate the relationship between core relationship patterns as measured using the MOR scale and scores on self-report measures of anxiety sensitivity and depression. It is hypothesized that ASI scores of participants will correlate with number of negative relationship episodes reported on the MOR, with high ASI scores associated with reports of negative relationship episodes. Second it is hypothesized that CES-D scores of participants will correlate with number of negative relationship episodes reported on the MOR, with those scoring higher on the depression measure reporting more negative episodes. Finally, it is predicted that ASI scores will correlate significantly with CES-D scores.

METHOD

Participants

Participants were students at The College of William and Mary who were enrolled in sections of Introductory Psychology and received two hours of research credit for involvement in the study. Participants included ten males and thirty-three females and were between eighteen and twenty two years of age.

Measures

The Anxiety Sensitivity Index (ASI) of Reiss, Peterson, Gursky, and McNally (1986), see Appendix A, is a widely used 16-item measure which assesses the extent to which a person finds anxiety-related sensations to be frightening or catastrophic in outcome (Peterson & Plehn, 1999). Each item on the ASI is scored on a 0 (very little) to 4 (very much) scale, and the total score is obtained by summing all items. Scores can range from 0 to 64. The ASI has a high degree of internal consistency, with alpha coefficients in the .80-.90 range (Plehn & Peterson, 2002). It has a test-retest reliability of r=.71 for a three year interim (Maller & Reiss, 1992). The reliability and validity of the ASI has been documented by over 100 published studies (McNally, 2002). Generally speaking, women score higher than men on the ASI. Patients with panic disorder score about 2 standard deviations above the ASI norm (Peterson & Plehn, 1999).

The Memories Of Relationships (MOR) questionnaire, see Appendix B, is a ten-item self-report questionnaire based on Lester Luborsky's concept of the Core Conflictual

Relationship Theme (CCRT). The MOR format asks participants to write narrative descriptions of past and recent episodes that have occurred in their most important relationships. Responses are coded according to Luborsky's model for *response of self, response of other,* and *wishes*. Two major evaluation phases for these narratives are required by the CCRT method: Phase A entails locating and identifying the relationship episodes, and Phase B is for extracting the CCRT from the set of narratives. To be complete, a relationship episode should include the events that occurred, the wishes, the responses from the other person and of the self, and the outcome of the event. Luborsky emphasizes that the pattern extracted should be of a central relationship, with central defined as the pattern that is most pervasive across the self-other interactions. Unfortunately, time limitations restricted the opportunity to ask for narrative descriptions of recurring self-other interaction patterns. Consequently, only one characteristic episode description was requested for key relationships using a neutral question prompt.

The Center for Epidemiological Studies measure of Depression (CES-D), see Appendix D, is a 20-item measure designed to assess depressed mood, feelings of worthlessness and guilt, sense of helplessness and hopelessness, psychomotor retardation, loss of appetite, and sleep disturbance. Respondents use a four-point scale to indicate the frequency with which symptoms have been experienced in the past week. Responses are either 0 (rarely, less than one day); 1 (little, one to two days); 2 (moderately, three to four days); 3 (most of the time, five to seven days). Scores range from 0 to 60, with the clinical cut-point in epidemiological studies generally being a score of 19 or above (Radloff, 1977). The BDI and The Center for Epidemiological Studies Depression scale (CES-D)

are the most frequently used and well-validated self-report measures of depression. Santor et al. (1995) examined scale discriminability in the BDI and the CES-D and found the CES-D to be more effective than the BDI in detecting differences in depressive severity in college students.

Procedure

In a process known as mass testing, Introductory Psychology students are required to complete a battery of questionnaires before participating in research. The ASI and the CES-D were included in this collection of questionnaires. The initial plan for the design of this study was to recruit participants that scored 1.5 standard deviations above the mass testing sample group mean for the high ASI group and those scoring within one standard deviation below the group mean for the control group. However, several unanticipated problems interfered with the implementation of this design. First a delay in the collection of mass testing data made recruiting pre-selected participants for the study more difficult than expected. Recruiting email messages sent by the author received few responses and of those who did respond, a significant proportion did not show up to scheduled MOR test sessions. As a result, it was decided to discard ASI recruiting restrictions in the interest of increasing sample size. In addition, the author and a second researcher agreed to share the MOR protocols in order to increase sample size. Unfortunately, the second researcher prematurely deleted identifying information from his data file and questionnaires before data could be shared. Consequently, this large group of participants could not be included in the sample.

Those participants who could be recruited met in a classroom where they first read and signed an informed consent form. They were instructed to carefully read the instructions on the questionnaire and to provide short essay answers consistent with the printed instructions to all ten questions, or to as many questions as they could answer in the allotted two hours (see appendix C for sample responses). Response booklets were number-coded to ensure confidentiality. When the participants finished, they were thanked for their participation and any questions were answered candidly.

Once data had been collected, the author met with two other researchers and the research supervisor to discuss and practice the narrative coding procedure. A criterion was established of three successive narratives coded identically for positive and negative themes by all raters before individual ratings were initiated. Each scored relationship episode was defined as a discrete episode of explicit narration which contained a main other person with whom the participant was interacting. Relationship episodes were scored for three types of responses which included "response from other," "response of self," and "wishes." Following Luborsky's format each element of the relationship episodes was assigned to categories. Examples of "responses of self" categories include "helpful," "unreceptive," "respected and accepted," and "oppose and hurt others." Examples of "responses from other" include "strong," "controlling," "upset," and "rejecting and opposing." Examples of "wishes" include "to assert self and be independent," "to oppose, hurt, and control others," "to be distant and avoid conflicts," and "to be loved and understood." The research team continued to meet periodically to discuss scoring questions and consult about difficult to code narratives. If a researcher

had difficulty in coding a particular narrative, then all researchers would code that narrative individually. Each researcher would discuss the reasons behind their coding choice and a consensus would be reached regarding the particular narrative as well as the individual categories. Inter-rater reliability statistics were not run due to the relatively small number of protocols that were independently scored by all researchers. In every case however, protocols included in this study were scored by the author.

RESULTS

Normative ASI data published in 1992 identified a mean of 19.01 with a standard deviation of 9.11 for the general population. The mean for the William and Mary subject pool (N=622) was 39.2 with a standard deviation of 10.32. ASI scores for participants in this study (N=43; M=47.09; SD=14.63) were higher on average than mass testing scores but were distributed along a unimodal continuum ranging from 16-80 (see Figure 1). The distribution of participant's CES-D scores (M=23.51; SD=8.43; range=11-44) was also unimodal (see Figure 2).

Those items on the Memories of Relationships questionnaire that were stated in a neutral manner (i.e., did not prompt the valence of the interaction described) were coded and categorized for positive or negative descriptions of interactions. Because in every case "response of self" ratings carried the same valence as "response of other" ratings, frequency of negative episodes was counted. Data analyses were completed only for items 3a, 4a, and 6 on the MOR because analyses were restricted to neutrally stated questions and due to the amount of missing data for items presented toward the end of the questionnaire. Two-tailed bivariate Pearson correlations were used to analyze the relationships between ASI and CES-D Scores and responses to MOR items 3a, 4a and 6. ASI scores correlated with scores on the CES-D, $r(37) = .5$, $p < .01$.

For item 3a, which asked for narrative descriptions of interactions with "mom," no correlation was found between the number of negative relationship episodes reported on

the MOR and scores on either the ASI or the CES-D (see Table 1). Participants' responses to item 3a showed very little variability when coded for response of self (see Figure 3), response from other (see Figure 4), and wishes (see Figure 5).

For the variable "dad" (item 4a), no correlation was found between the number of negative relationship episodes reported on the MOR and scores on the ASI (see Table 1). However, number of negative relationship episodes with "dad" did correlate with participant's scores on the CES-D, $r(31) = .421$, $p < .05$, with those reporting more negative interactions with dad scoring higher on the CES-D (see Figure 6). This significant finding should be viewed with some amount of caution, however, as six correlations were run on the same MOR data set consisting of 45 participants, thereby increasing the likelihood of obtaining a significant result. There was no relationship between number of negative relationship episodes reported with friends on the MOR (item 6) and scores on either the ASI or the CES-D (see Table 1).

Partner scores could not be analyzed due to the large number of missing cases. The amount of time required by most participants to complete the MOR apparently led many participants to omit one of the last questions that asked for descriptions of interactive episodes with current or past romantic partners.

DISCUSSION

Participants' scores on the CES-D correlated significantly with their scores on the ASI. This finding is consistent with the report of Otto et al., (1995) that ASI scores were elevated in depressed subjects, even in subjects without a co-morbid anxiety disorder. In fact, Otto et al. (1995) reported that the ASI scores of depressed patients were similar to the ASI scores of patients with social phobia, obsessive-compulsive disorder, and generalized anxiety disorder. This evidence suggests that excessive worry and concern over somatic signs of arousal may be a characteristic of individuals who are at an increased risk for both depression and anxiety disorders. The manner in which anxiety sensitivity contributes to dysphoric mood and dysfunctional levels of anxiety in response to a wide range of situations merits further study. The correlation between AS and risk for either or both anxiety and depression is consistent with the work of Beck, Laude, and Bohnert (1974) who found that anxious individuals showed high levels of ideation and images associated with fears of injury, illness, loss of control, failure, inability to cope, rejection, and depreciation. Fears of failure, inability to cope, rejection and social depreciation are also implicated in cognitive models of risk for depression (Beck, 1967).

In this study, high CES-D scores were correlated with an increased likelihood that participants would write about negative interaction episodes with their fathers in response to a neutral prompt. Negative interaction episode rating categories included responses from others as: "upset," "controlling," "bad," or "rejecting and opposing" and the

responses of self as "unreceptive," "oppose and hurt others," "helpless," "disappointed and depressed," or "anxious and ashamed." The observed relationship between CES-D scores and negative descriptions of paternal interactions is consistent with reports that depressed individuals demonstrate low positive affect, high levels of self-criticism and negative affect, and interpersonal dependency (Cox et al., 2001).

Results did not support the hypothesis that heightened levels of anxiety sensitivity would be associated with fewer reports of positive relationship episodes with mother, father, or friends. This result seems to contradict the findings of previous studies in which high levels of anxiety sensitivity were associated with signs of interpersonal difficulties including: insecure interpersonal attachment, dependency on significant others, and hypochondriac concerns (Benton & Allen, 1996; Watt & Stewart, 2000; Shear et al., 1993; Liebman & Allen, 1995).

The design, implementation, and results of this study were plagued by several unforeseen difficulties that limit interpretation of results. For example, several of the questions on the Memories of Relationships (MOR) measure were worded to prompt either a positive or negative answer. This question structure was consistent with Luborsky's Core Conflictual Relationship Theme (CCRT) construct but limited response valence variability. Participants were certain to provide negative episode descriptions in response to questions asking for negative interactions. A second potential confounding variable is associated with the sequence of questions on the MOR. Although questions 3a and 4a were worded to provide a neutral prompt, the second part of these questions (3b and 4b) specifically asked for a negative episode. This sequence may have inadvertently

encouraged participants to balance the valence of their descriptions by reporting a positive episode for 3a and 4a, thereby indirectly limiting response variability to these items. An additional problem with the design of MOR was that the measure required more time than was anticipated, even though several test subjects had completed the questionnaire within the anticipated time frame during a preliminary trial. As a result many study participants were not able to answer all of the questions in the allotted time period, and many did not respond to those items located toward the end of the questionnaire. The content and mode of presentation of instructions provided with the MOR also may not have been sufficiently emphasized and detailed as a number of participants wrote about stories from their past but did not detail a specific interaction involving the reactions of others.

In addition to problems with the MOR, the study sample size was smaller than initially planned and the range of ASI scores of participants was skewed toward the high end of the published normative range. In part, this is because the mean ASI score of the William and Mary Introductory Psychology class mass testing subject pool (M=38.7) is well above the mean of the general population (M=19.01) reported in the literature. In fact this mean William and Mary ASI score obtained in the fall of 2002 is close to the average mean one would expect to find in a population of panic disorder patients (Peterson & Plehn, 1999). The mean ASI score of participants in this study (M=47.09) was even higher than the mass testing mean. This elevated ASI mean score reflects, in part, sampling bias that resulted from the author's attempts early in the semester to prioritize recruitment of high ASI scoring participants. This recruiting decision was initiated due to the delayed

implementation of mass testing in the three Introductory Psychology sections. It was anticipated that high scoring participants would be more difficult to recruit and those closer to the sample mean could be more easily recruited using general signup sheets. Unanticipated difficulties in recruiting an adequate sample of low scoring participants contributed to the skewed study sample. Inclusion of so many high scoring participants limited the range of ASI scores and may have obscured any correlation between ASI scores and ratings of MOR items. This sample bias in combination with problems concerning the content of MOR questions may account for the failure to obtain a significant correlation between ASI scores and MOR item content.

The high ASI scores observed among William and Mary students is an interesting finding in itself. If this finding is not an artifact of differences in test administration procedures, it raises interesting questions regarding the potential relationship between ASI scores and characteristics such as achievement motivation, intelligence, and the impact of a competitive academic environment on a supposedly stable dispositional trait. If this line of research is to be continued improvements in the Memories of Relationships questionnaire will be necessary. The measure was developed to measure Luborsky's categories of core conflictual relationships but had not been previously tested with a large sample. The MOR should be revised to prompt with affect neutral questions and shortened to include fewer questions. Questions should be phrased to probe at significant relationship episodes while still allowing for either a positive or negative response. In addition, instructions should be presented in oral and written form and emphasized to ensure clarity and assurances of confidentiality before participants begin to complete the

questionnaire. Perhaps an item designed to assess parental reactions to childhood illnesses could be incorporated into the MOR since parental encouragement of sick role behavior is reportedly associated with high AS (Watt et al., 1998). It may also be useful to include questions which ask participants to rate levels of satisfaction and self-esteem experienced within their intimate relationships as several researchers (Shear et al., 1993; Liebman & Allen, 1995; Benton & Allen, 1996) have reported that individuals high in anxiety sensitivity experience deficiencies in particularly these areas in the context of an intimate relationship. These improvements in the MOR may improve its usefulness as a measure of core relationship themes.

Elevated anxiety sensitivity is conceptualized as a learned tendency to view and react to anxiety symptoms in a pathological way (Stein & Rapee, 1999). Silverman and Weems (1999) reported that parental depression, as measured by Beck's Depression Inventory, was significantly related to levels of anxiety sensitivity in children. Given evidence of the relationship between AS and depression, it is possible that a tendency to interpret and over-react to somatic signs of arousal may be a risk factor in the etiology of both disorders.

According to Lilienfeld (1999), "the history of science teaches us that many of the most important advances in knowledge stem from the demonstration that constructs previously thought to be distinct or independent are in fact interrelated." A better understanding of the relationship between anxiety sensitivity and the processes that influence the covariation between anxiety sensitivity, developmental experiences, and

depression may provide important insights regarding the etiology of these problems at the clinical level.

TABLE 1

CORRELATIONS: ASI SCORES AND CES-D SCORES WITH MOR VARIABLES

	Variables		
Measure	Mom	Dad	Friend
ASI			
Pearson Correlation	.113	.230	.033
Sig. (2-tailed)	.480	.177	.839
N	41	36	41
CES-D			
Pearson Correlation	.232	.421*	.141
Sig. (2-tailed)	.173	.018	.406
N	36	31	37

Note. ASI = Anxiety Sensitivity Index; CES-D = Center for Epidemiological Studies Depression measure.

*$p < .05$

FIGURE 1

DISTRIBUTION OF PARTICIPANTS' ASI SCORES

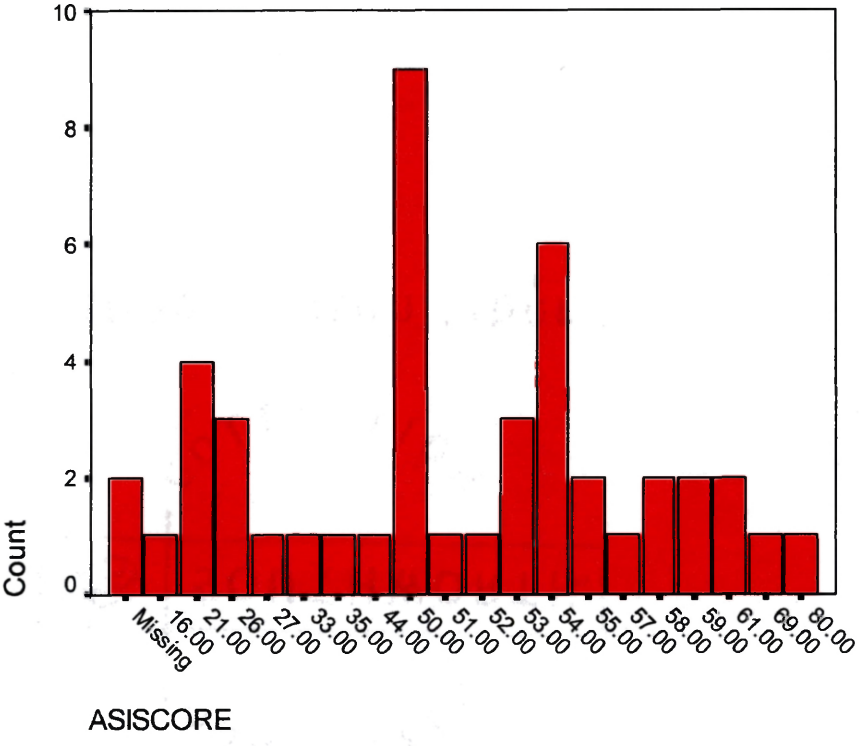


FIGURE 2

DISTRIBUTION OF PARTICIPANTS' CES-D SCORES

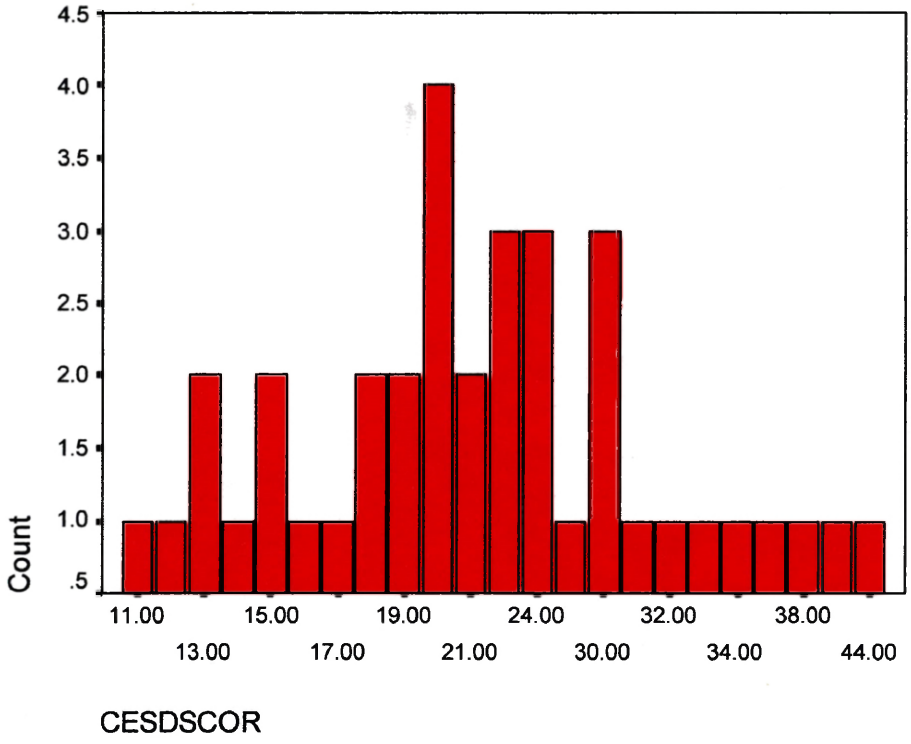


FIGURE 3

"RESPONSE OF SELF" FREQUENCY DISTRIBUTION FOR THE VARIABLE "MOM."

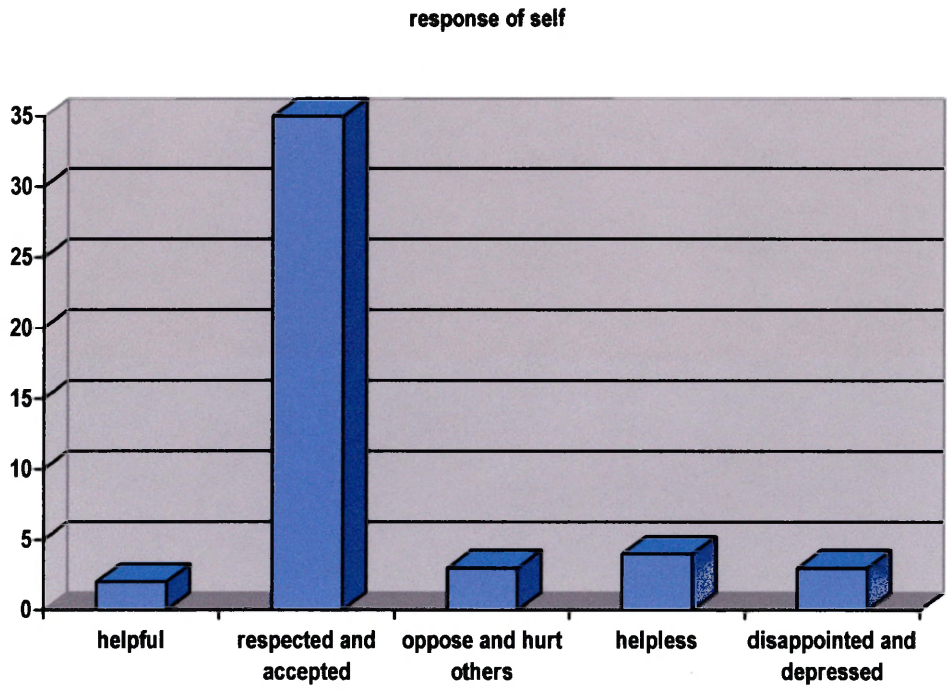


FIGURE 4

"RESPONSE FROM OTHER" FREQUENCY DISTRIBUTION FOR THE VARIABLE "MOM."

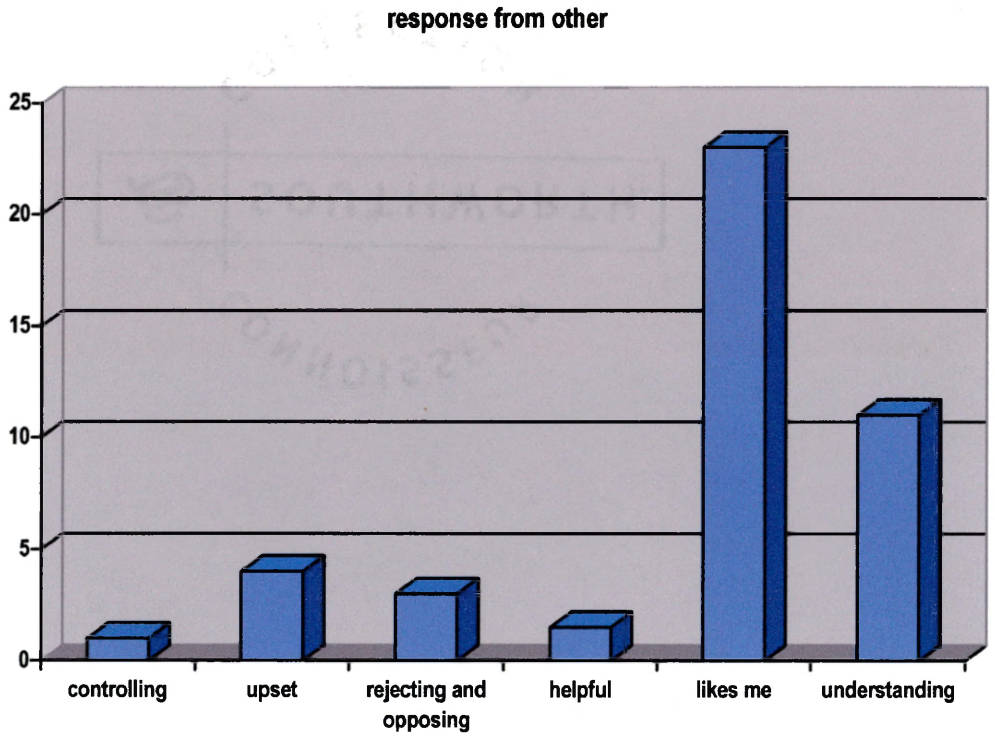


FIGURE 5

"WISHES" FREQUENCY DISTRIBUTION FOR THE VARIABLE "MOM."

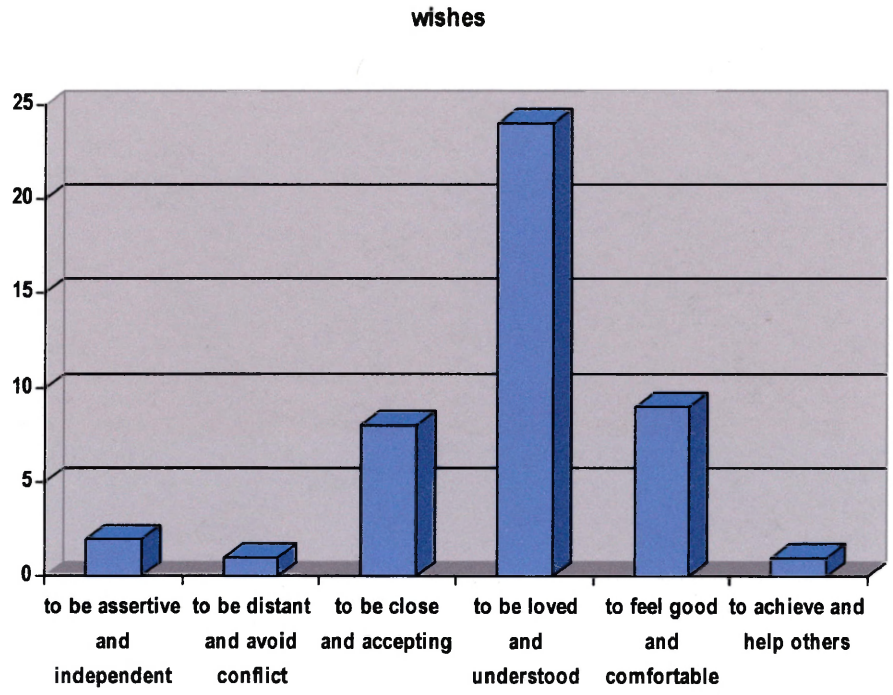
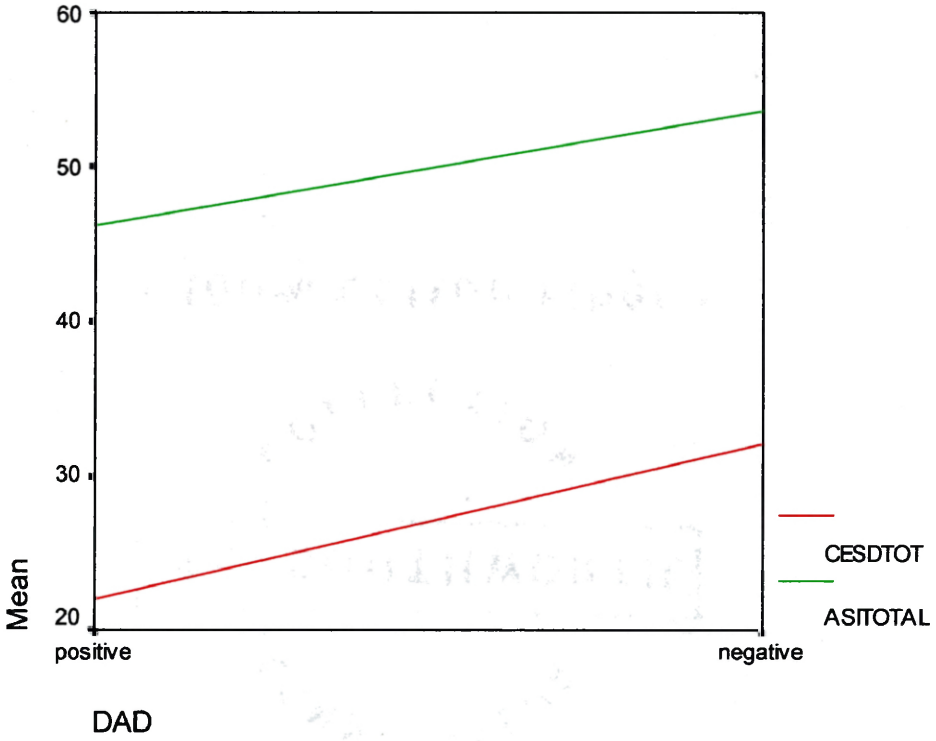


FIGURE 6

RELATIONSHIP OF "DAD" RATINGS TO ASI AND CES-D SCORES.



APPENDIX A

THE ANXIETY SENSITIVITY INDEX (ASI)

Please rate your level of agreement with the following sentences from 0 (very little) to 4 (very much).

1. It is important to me not to appear nervous.

2. When I cannot keep my mind on a task, I worry that I might be going crazy.

3. It scares me when I feel "shaky" (trembling).

4. It scares me when I feel faint.

5. It is important to me to stay in control of my emotions.

6. It scares me when my heart beats rapidly.

7. It embarrasses me when my stomach growls.

8. It scares me when I am nauseous.

9. When I notice that my heart is beating rapidly, I worry that I might have a heart attack.

10. It scares me when I become short of breath.

11. When my stomach is upset, I worry that I might be seriously ill.

12. It scares me when I am unable to keep my mind on a task.

13. Other people notice when I feel shaky.

14. Unusual body sensations scare me.

15. When I am nervous, I worry that I might be mentally ill.

16. It scares me when I am nervous.

APPENDIX B

MEMORIES OF RELATIONSHIPS (MOR) MEASURE

Memories of Relationships

This is a research project about the relationship between personality attributes and aspects of memories of important past interactions. It is not necessary to use actual names or places in your descriptions, but it is important that you only write about memories of actual events. Booklets are number coded so your responses will remain anonymous. Only my research supervisor Dr. Shean will have access to the code. Your responses will be coded for group statistical analyses only. Throughout the process confidentiality will be safeguarded so that your name will not be associated with what you have written. All booklets will be securely disposed of once the project is completed.

Instructions
This packet contains several questions about your memories of past relationships, as well as questions about your current relationships and feelings. It is important that you answer each question in detail, which means brief 100 word answers will not be adequate. Your responses to all questions about interactions must include clear descriptions of **your own** *wishes, needs, or intentions* as well as your responses both behaviorally and in terms of *feelings*. Each response should also describe when possible the behaviors, feelings, intentions, and responses of the **other person**(s) in the interaction. Finally, your response should include some comments on the **outcome**, e.g., how you responded, and/or felt shortly after it was over.

1. Describe in detail your most vivid memory of being nurtured.

2. Describe in detail your most vivid memory of being disciplined or punished.

3. Describe two specific encounters with your mother, something that stands out. A. can be an incident that is typical of your relationship, really meaningful, really good, really bad – whatever comes to mind. (Specify if step-parent.) B. should describe a frustrating encounter or experience.
A.
B.

4. Describe two specific encounters with your father, something that stands out. A. can be an incident that is typical of your relationship, really meaningful, really good, really bad –

whatever comes to mind. (Specify if step-parent.) B. should describe a frustrating encounter or experience.
A.
B.

5. Was there another adult person who was really important to you as a child? If so, please describe two specific encounters with that person, something that stands out. A. can be an incident that is typical of your relationship, really meaningful, really good, really bad – whatever comes to mind. B. should describe a frustrating encounter or experience. Leave blank if question does not apply.
A.
B.

6. Now we will ask you to write about your friendships. Think about your two closest friends either present or from the past. Please review the instructions before beginning these questions.

Your responses to all questions about interactions should include clear descriptions of **your own** ***wishes, needs, or intentions*** as well as your responses both behaviorally and in terms of ***feelings***. Each response should also describe when possible the behaviors, feelings, intentions, and responses of the **other person**(s) in the interaction. Finally, your response should include some comments on the **outcome**, e.g., how you responded, and/or felt shortly after it was over.

Friend Number 1. Describe two specific incidents that stand out in some way about your relationship. It can be an incident that is typical of your relationship, really meaningful, really good, really bad – whatever comes to mind.
A.
B.

Friend Number 2.
A.
B.

7. Now we would like to ask you a few questions about your romantic relationships. Describe your current or most recent romantic relationship. Try to think of two specific incidents that stand out in some way and describe them in detail.
A.
B.

8. Now think of a really frustrating interaction that occurred with a romantic partner. Describe that incident following the instructions given previously.

9. Describe an incident in which your anxiety had an important effect on your interaction with a romantic partner.

10. Now we would like you to write about yourself. First describe how you normally feel about yourself.

A. Describe your normal mood.
B. Describe an episode where you felt guilty or ashamed afterward.
C. Describe any beliefs that you hold that some other people might find unusual.

APPENDIX C

SAMPLE RESPONSES TO MOR MEASURE

Response to item 3a.

"When I was in elementary school (2nd grade) my father moved to Texas to work for two years and I stayed in Virginia with my mom and one of my sisters – my parents were still married. During this time, mom and I got to spend more time together. I remember I used to subscribe to Highlights Magazine. I remember lying on mom's bed with her reading the joke section of the magazine. We laughed and laughed until we cried. I didn't even understand the jokes, but sitting there and laughing with my mom made me so happy. My stomach hurt because I was laughing so hard. We both just loved being with one another in that moment. The fact that I told mom I didn't get the jokes made her laugh even harder, but I never felt like she was laughing at me. We just were having a good time. She recounts that day. I know it's a happy memory for us both."

Response to item 4a.

"I remember one day I went to visit my father's office. When he introduced me to people at work I think about three or four of them asked me if I was going to be a doctor. I know that's what he wants from me, but continues to say that it's my choice. I know part of him thinks that if he tells other people then they will convince me to become one. That day I had gone into DC for a job at this environmental group. When it turned out I didn't like that my dad sent out an email to his friends with my resume, which I hadn't updated yet (and he would have known this had he asked me first). In this email he stated that I was pre-med and looking for an internship in that field. It really angered me that he would do that. He claimed that it was because it was getting so late to get a summer job that I needed the help, and wasn't really trying to push me in that direction, and that that was the only thing he could think of to write."

Response to item 6a.

"I have had many friends enter and leave my life. One of my best friends was a guy named Derek White. We grew up together from the first grade to the third. He was the first friend that I met when my family moved to Hampton, VA. Derek always seemed like an older brother to me. I can recall when he fought two guys over me, for teasing me. Derek also invited me to all of his parties and fun socials. He accepted me, when no one else on the block would. I have to admit that I was different from the other kids when I was young. I didn't dress nice, or stand out in the crowd. However, Derek accepted me and that was all I need as a friend."

APPENDIX D

CENTER FOR EPIDEMIOLOGICAL STUDIES DEPRESSION MEASURE

CESD

Last 4 digits of SS# _____

Below is a list of the ways you might have felt or behaved. Please indicate how often you felt this way during the past week.

0 rarely or none of the time (less than one day)
1 some or a little of the time (1 - 2 days)
2 occasionally or a moderate amount of time (3 - 4 days)
3 most or all of the time (5 - 7 days)

_____ 1 I was bothered by things that usually don't bother me.
_____ 2 I did not feel like eating; my appetite was poor.
_____ 3 I felt that I could not shake off the blues even with help from my family or friends.
_____ 4 I felt that I was just as good as other people.
_____ 5 I had trouble keeping my mind on what I was doing.
_____ 6 I felt depressed.
_____ 7 I felt that everything I did was an effort.
_____ 8 I felt hopeful about the future.
_____ 9 I thought my life had been a failure.
_____ 10 I felt fearful.
_____ 11 My sleep was restless.
_____ 12 I was happy.
_____ 13 I talked less than usual.
_____ 14 I felt lonely.
_____ 15 People were unfriendly.
_____ 16 I enjoyed life.
_____ 17 I had crying spells.
_____ 18 I felt sad.
19 I felt that people dislike me.
_____ 20 I could not get "going."

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